

FIG._1B

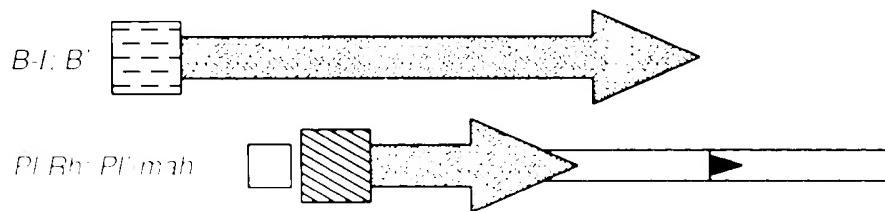
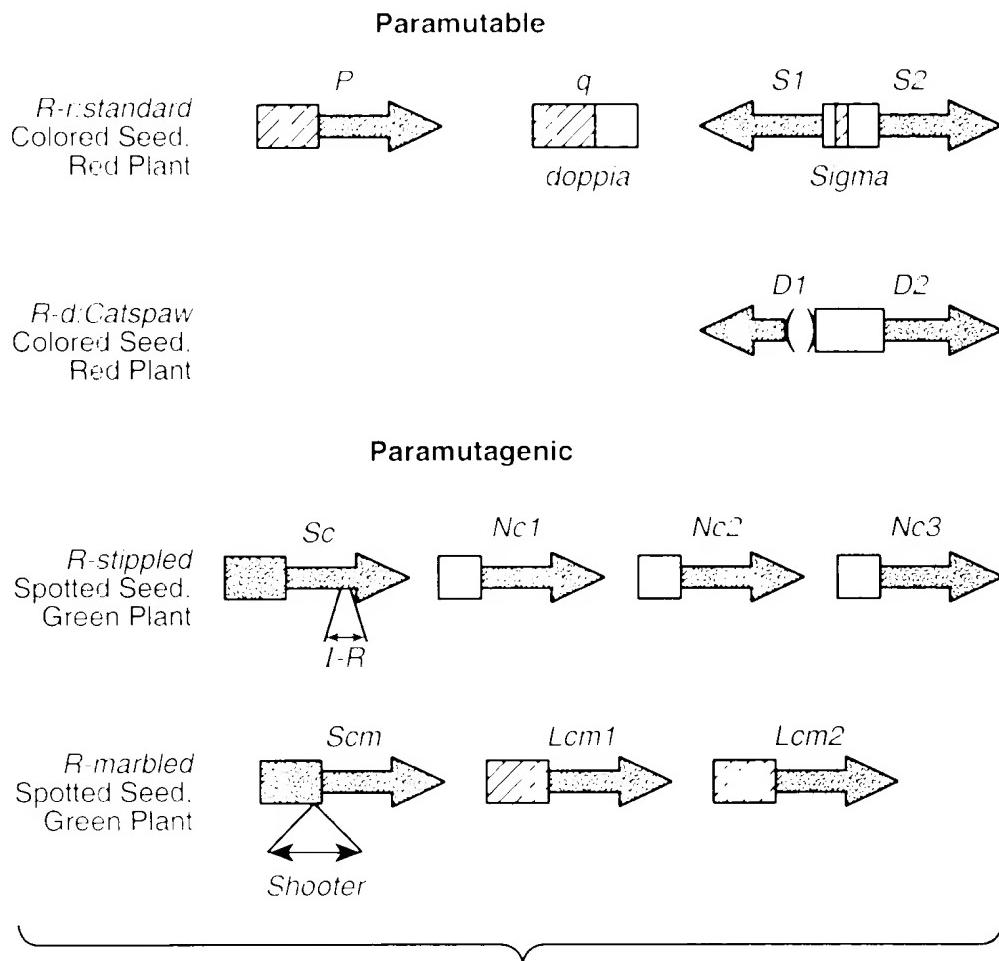
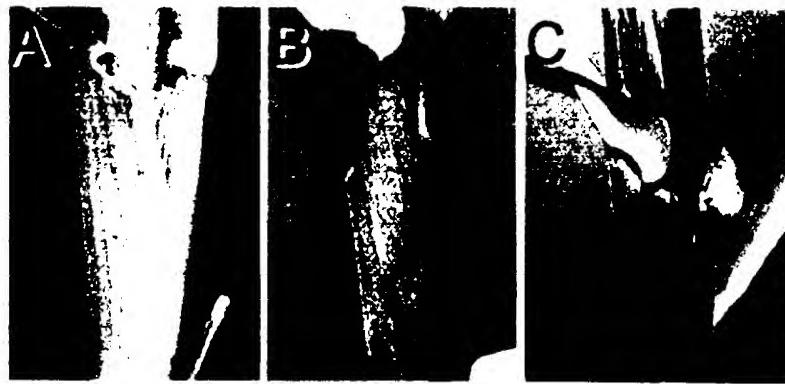


FIG._2B

FIG._3A FIG._3B FIG._3C

B' Mop1 / mop1-1 *B' mop1-1 / mop1-1* *B-I Mop1 / Mop1*



*B' Sectors in a
B' mop1-1 Plant*

PI' Mop1 / -

PI' mop1-1 / mop1-1

FIG._3D FIG._3E FIG._3F

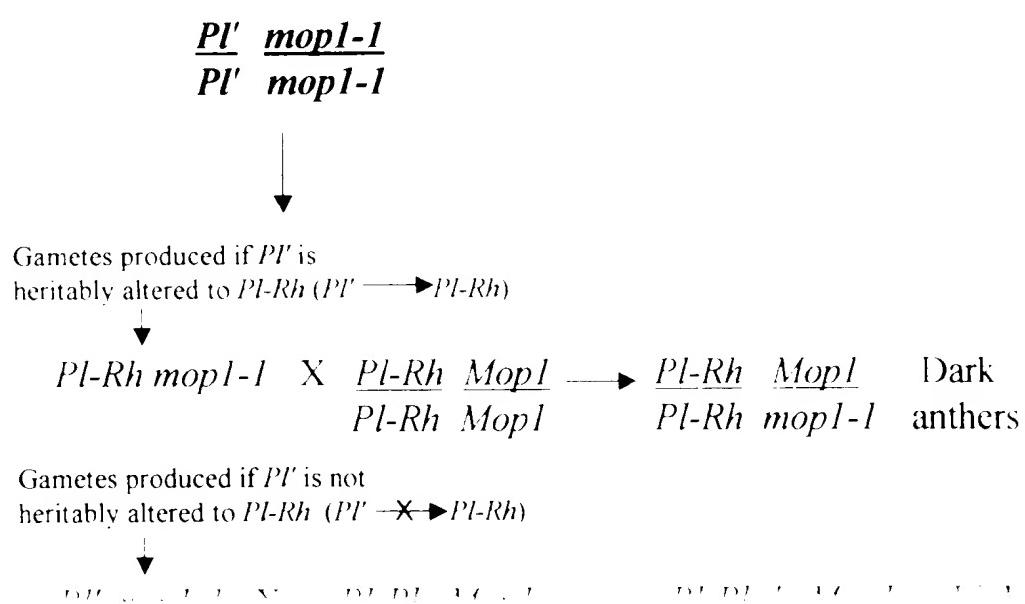
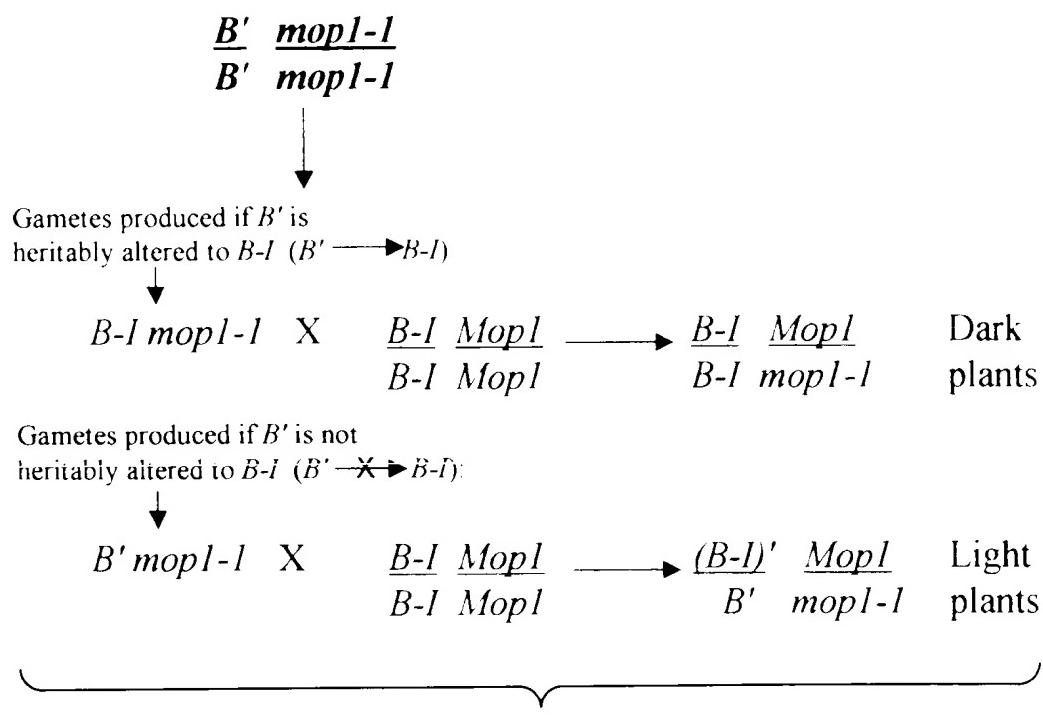
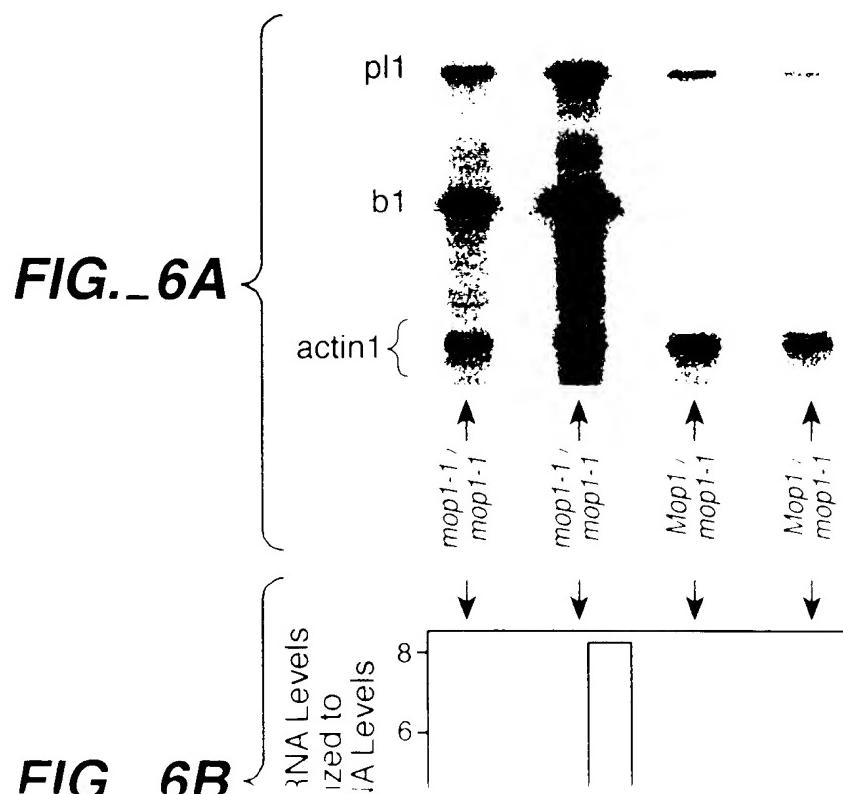
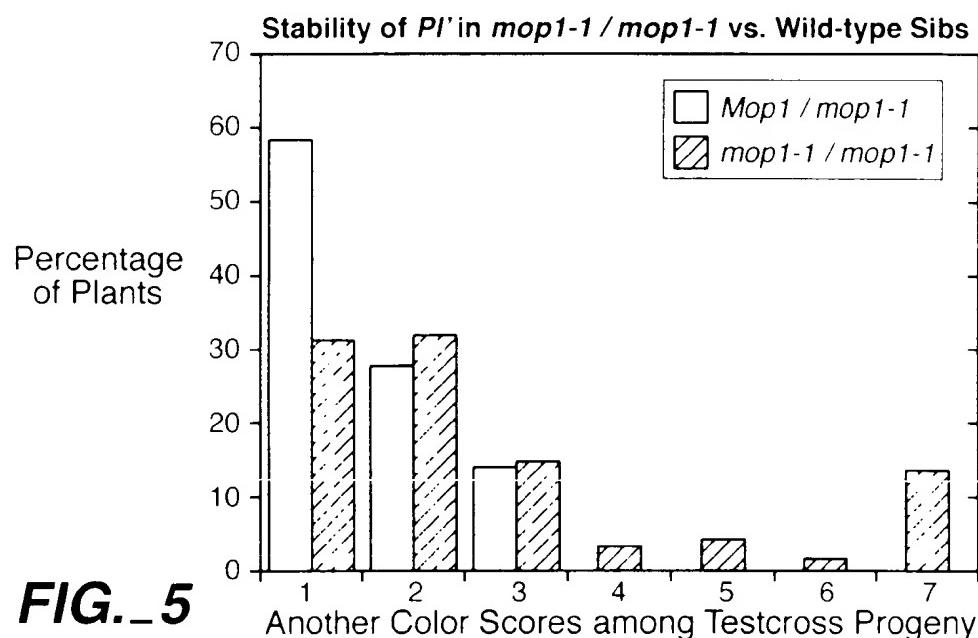


FIG._4B



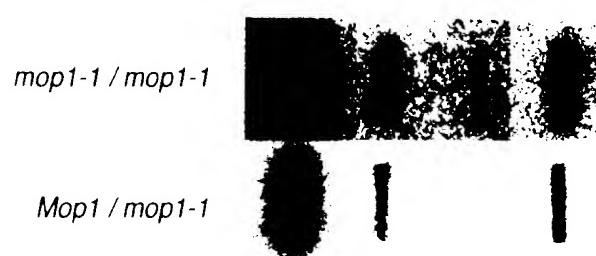


FIG._7A

ubiquitin2 b1 SK+ c2

b1 Transcription Rate
Normalized to
ubiquitin2
Transcription Rate

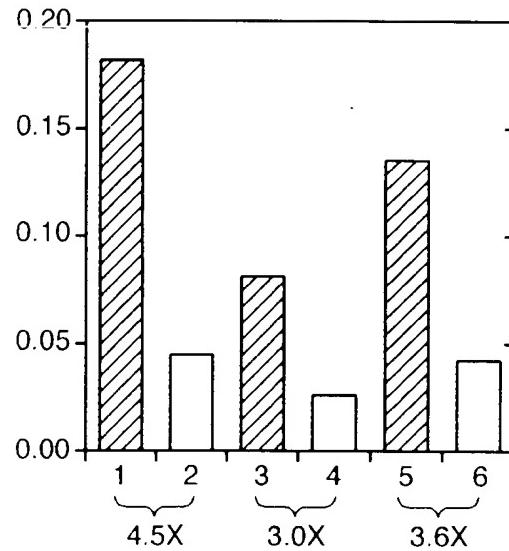


FIG._7B

b1 RNA Level
Normalized to
ubiquitin2
RNA Level

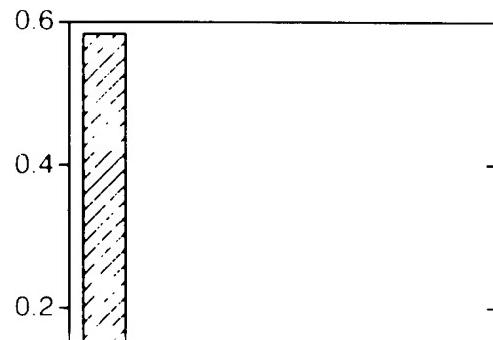
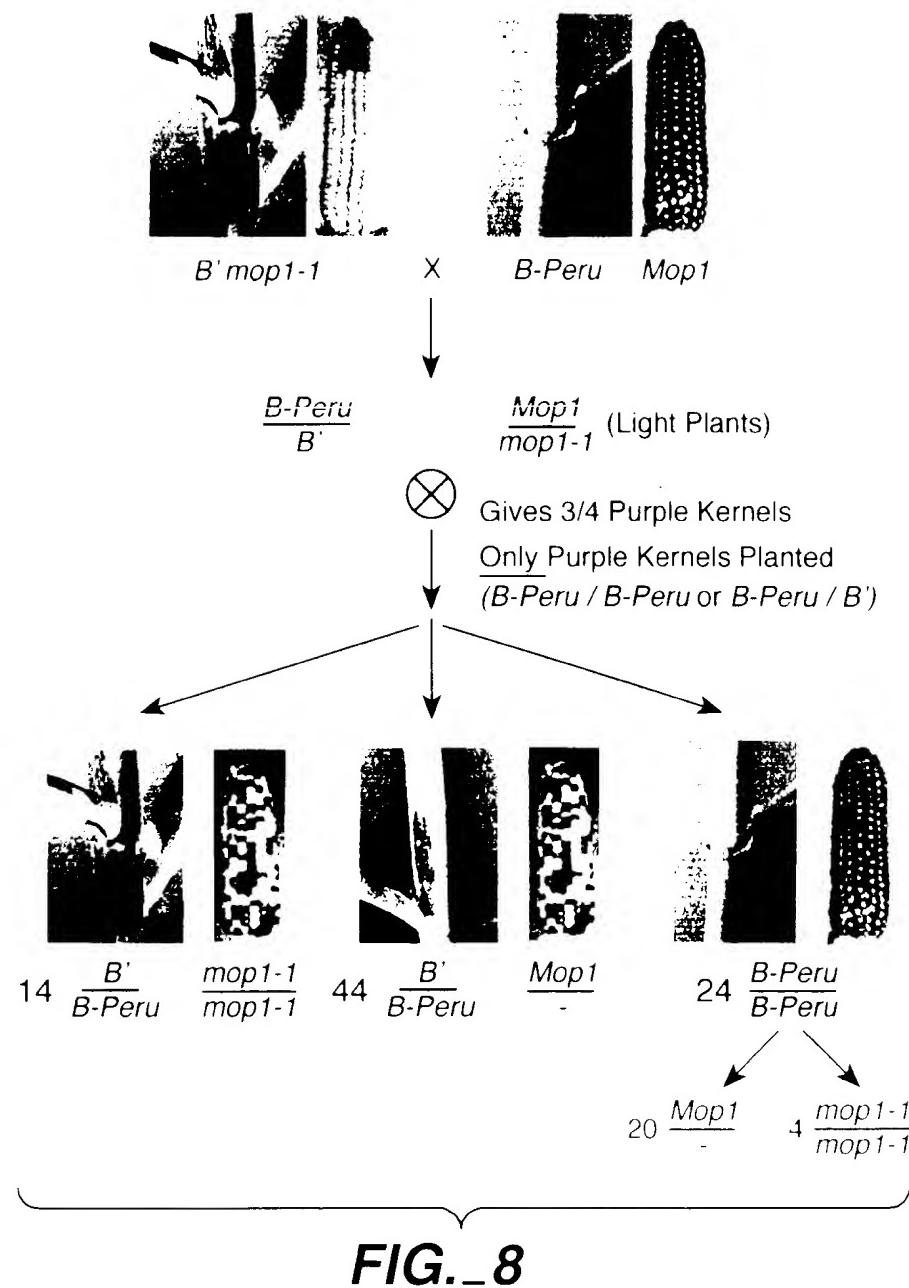
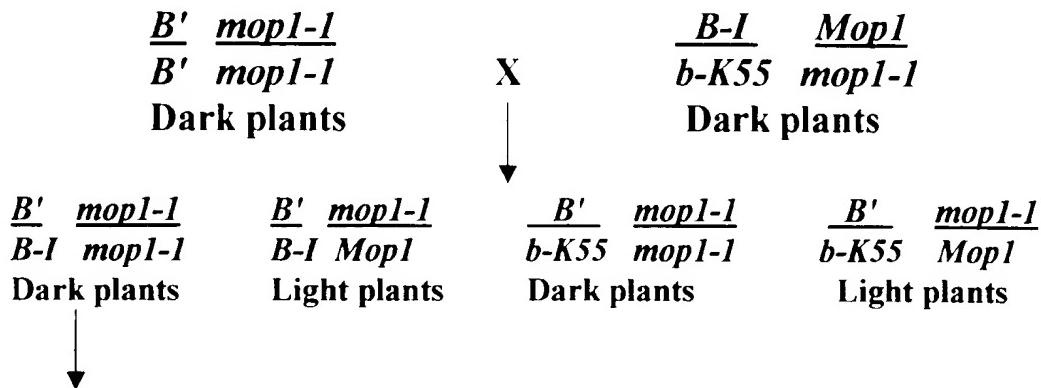


FIG._7C

1 2 3 4 5 6
13.3X 10.8X 7.3X





Testcross (by *B-Peru/B-I Mopl/Mopl* tester--diagram shows only *B-Peru* gametes of tester)

Gametes produced if paramutation
is prevented ($B-I \rightarrow B'$):

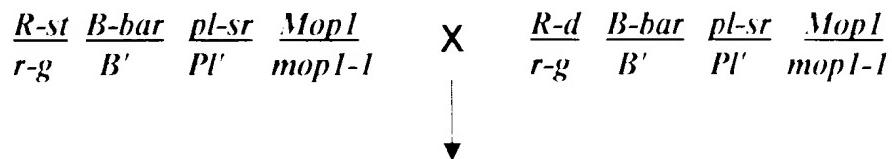
$$50\% \ B' \text{ } mopl-1 \text{ } X \text{ } B\text{-}Peru \text{ } Mopl \longrightarrow \begin{matrix} \text{---} \\ \text{---} \\ \text{---} \end{matrix} \frac{\text{---}}{\text{---}} \frac{\text{---}}{\text{---}} \frac{\text{---}}{\text{---}} \text{ } B\text{-}Peru \text{ } Mopl \text{ } \text{Light} \\ \text{plants}$$

$$50\% \ B\text{-}I \text{ } mopl-1 \text{ } X \text{ } B\text{-}Peru \text{ } Mopl \longrightarrow \begin{matrix} \text{---} \\ \text{---} \\ \text{---} \end{matrix} \frac{\text{---}}{\text{---}} \frac{\text{---}}{\text{---}} \frac{\text{---}}{\text{---}} \text{ } B\text{-}I \text{ } Mopl \text{ } \text{Dark} \\ \text{plants}$$

Gametes produced if paramutation
occurred ($B-I \rightarrow B'$):

$$100\% \ B' \text{ } mopl-1 \text{ } X \text{ } B\text{-}Peru \text{ } Mopl \longrightarrow \begin{matrix} \text{---} \\ \text{---} \\ \text{---} \end{matrix} \frac{\text{---}}{\text{---}} \frac{\text{---}}{\text{---}} \frac{\text{---}}{\text{---}} \text{ } B\text{-}Peru \text{ } Mopl \text{ } \text{Light} \\ \text{plants}$$

FIG._9



Four genotypes of interest among $R-d$ - Pl' - progeny

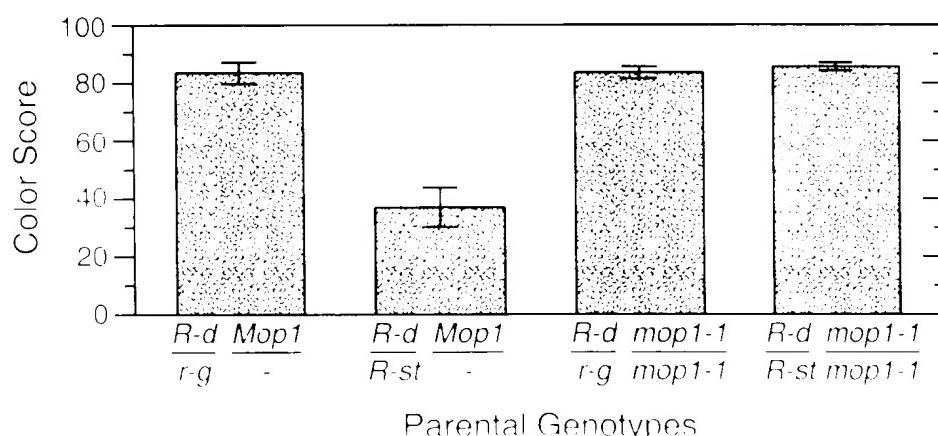
$\frac{3}{16}$ $\underline{R-d}$ $\underline{Mop1}$ Light plant
 $r-g$ -

$\frac{3}{16}$ $\underline{R-d}$ $\underline{Mop1}$ Light plant
 $R-st$ -

$\frac{1}{16}$ $\underline{R-d}$ $\underline{mop1-1}$ Dark plant
 $r-g$ $mop1-1$

$\frac{1}{16}$ $\underline{R-d}$ $\underline{mop1-1}$ Dark plant
 $R-st$ $mop1-1$

FIG._10A



TC LF

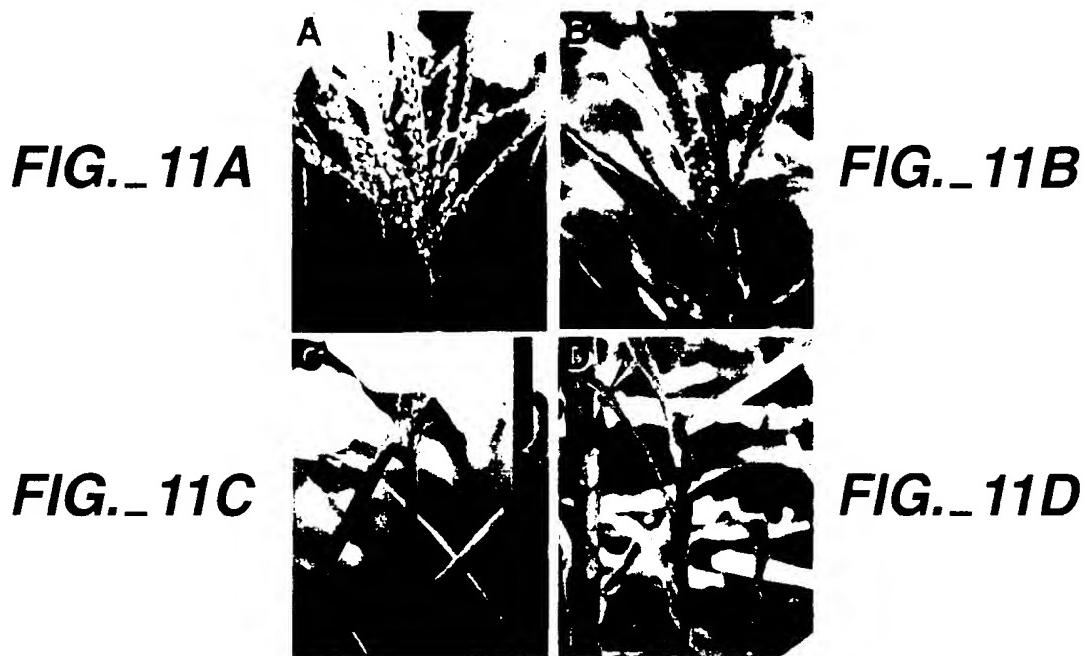


FIG._11C  **FIG._11D**

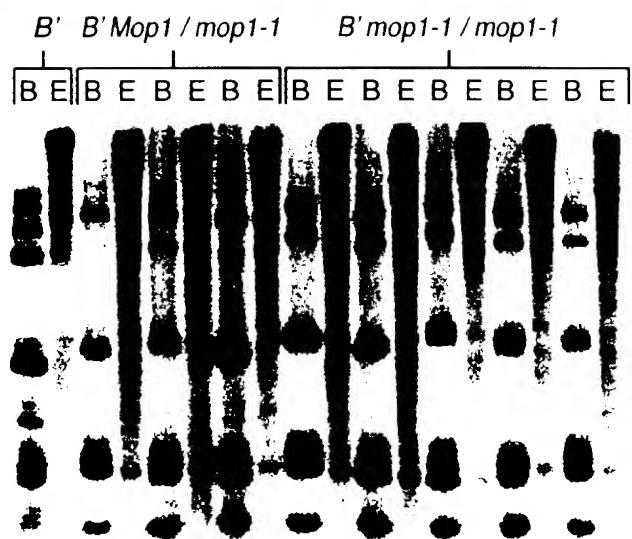
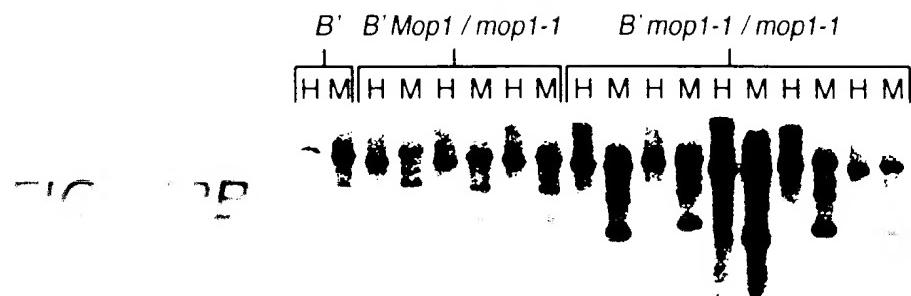
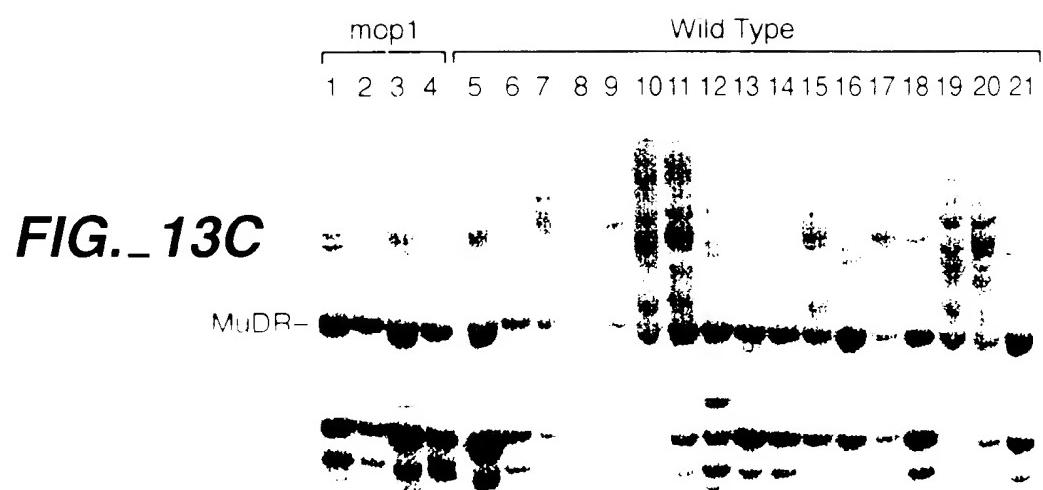
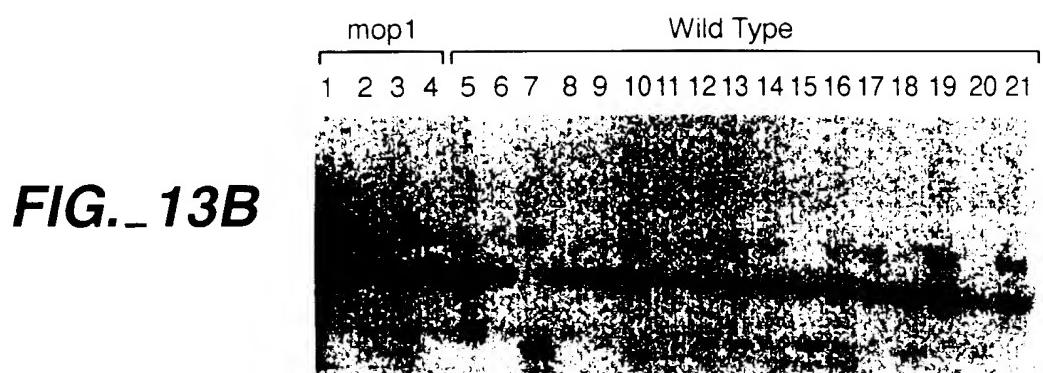
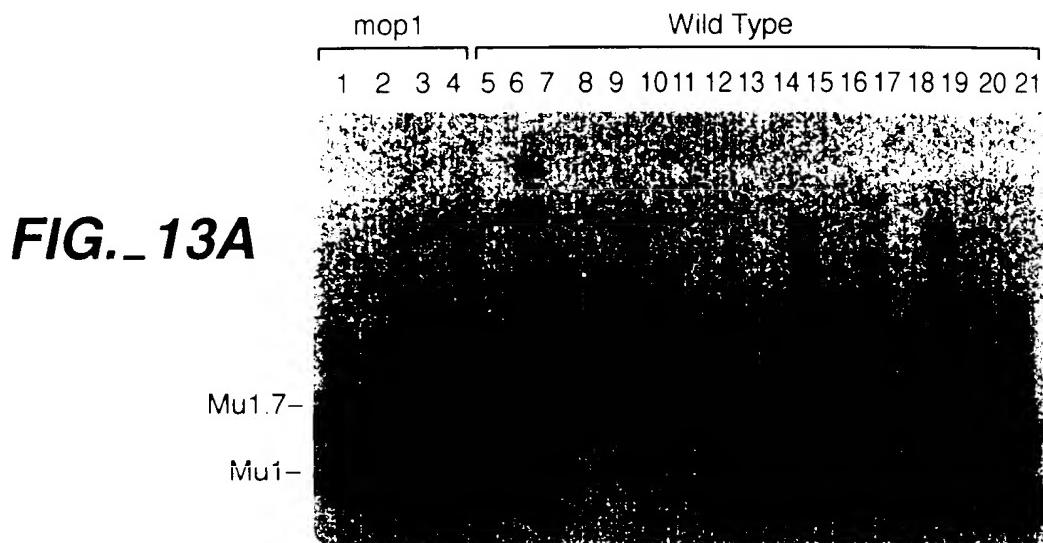


FIG._12A





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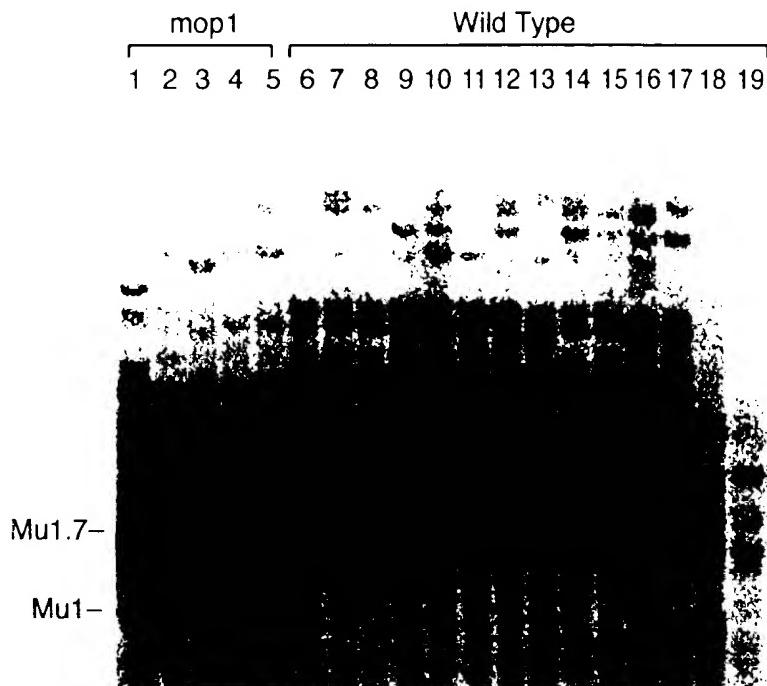


FIG._14A

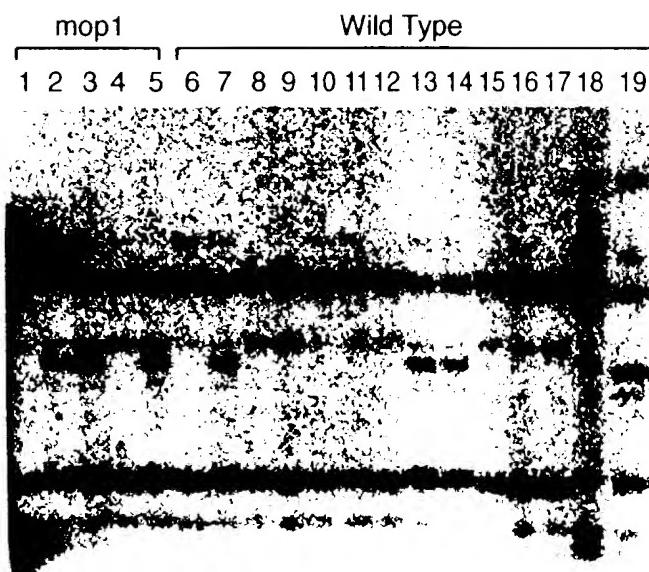


FIG._14B

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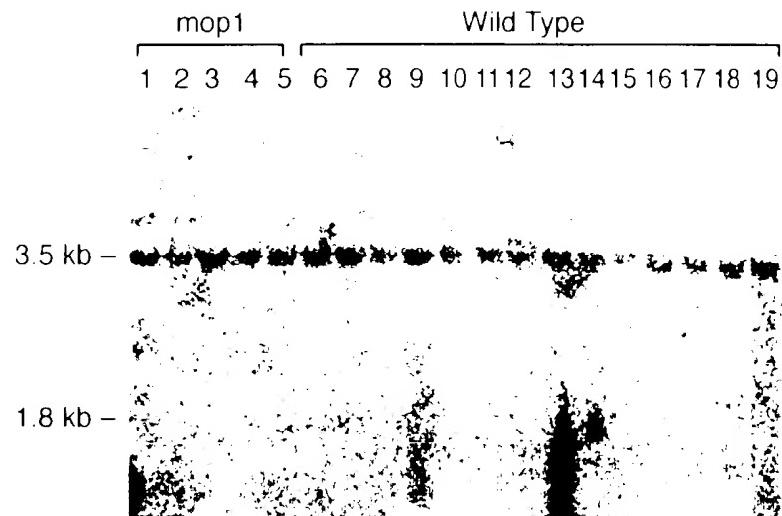


FIG._14C

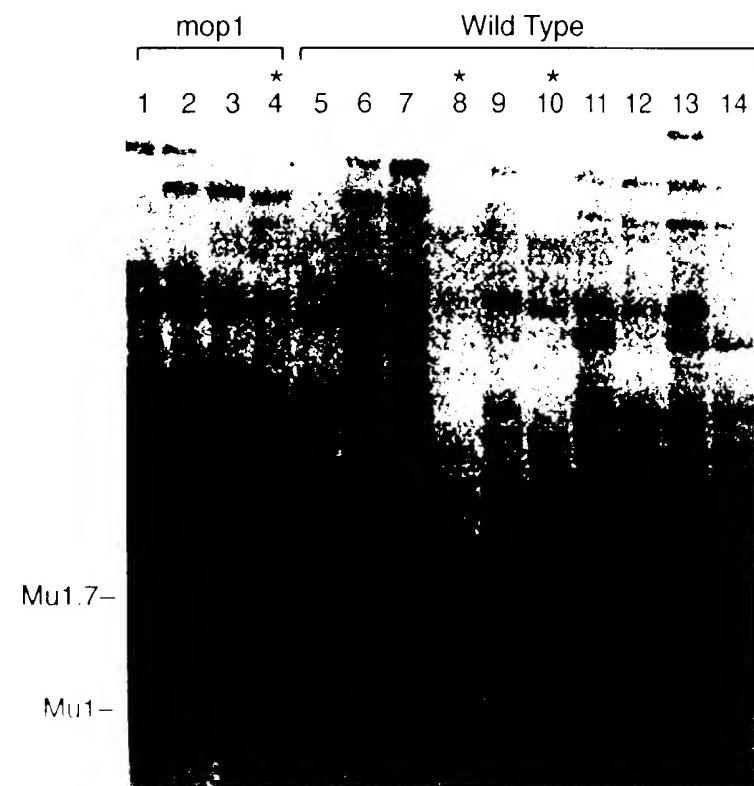


FIG._14D

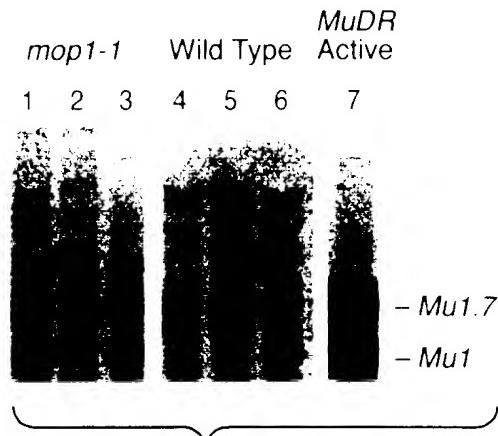


FIG._ 15A

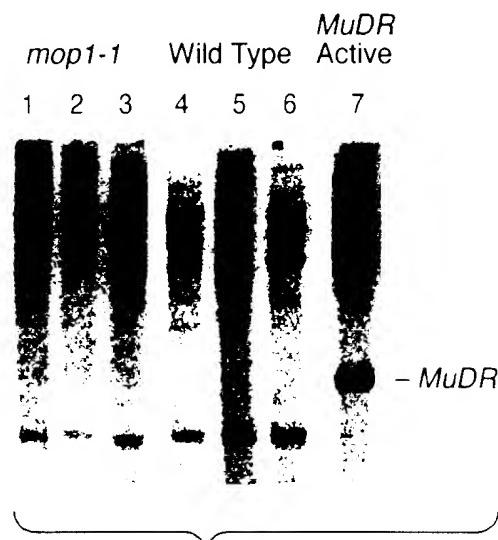


FIG._ 15B

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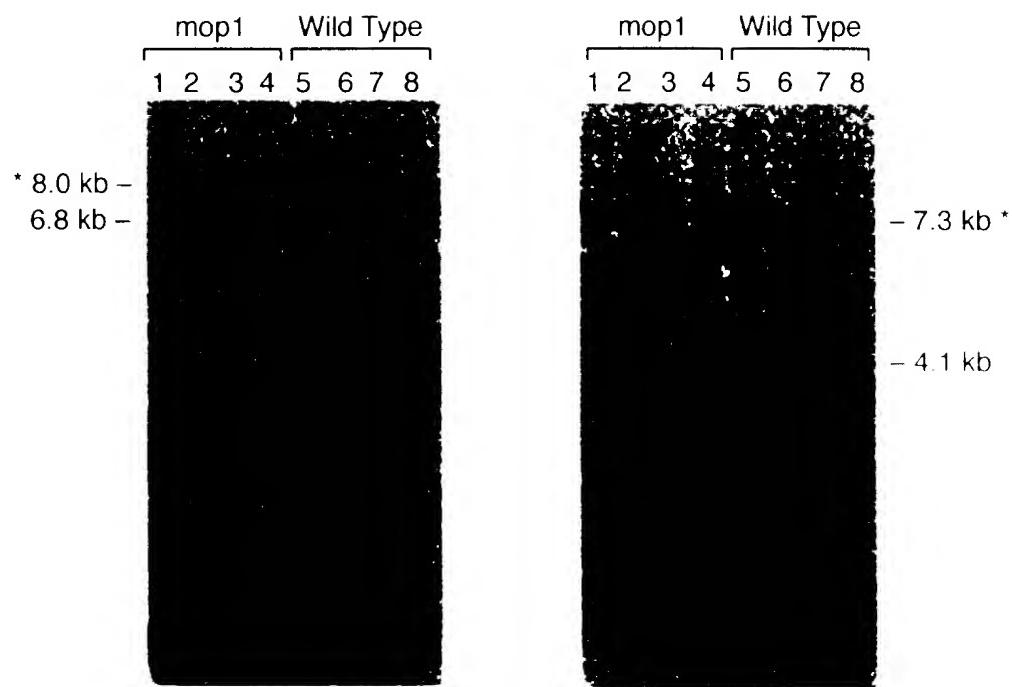
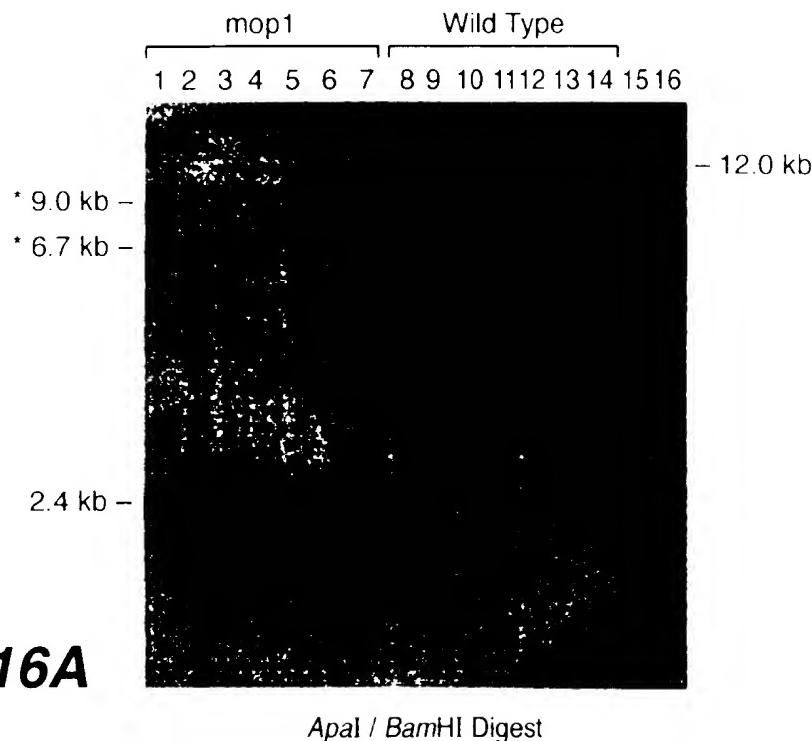


FIG._ 16B

FIG._ 16C

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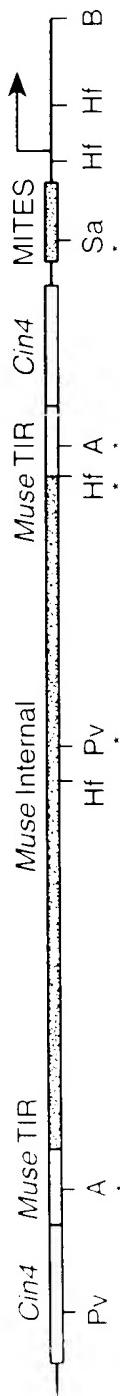


FIG.- 16D

✓
2

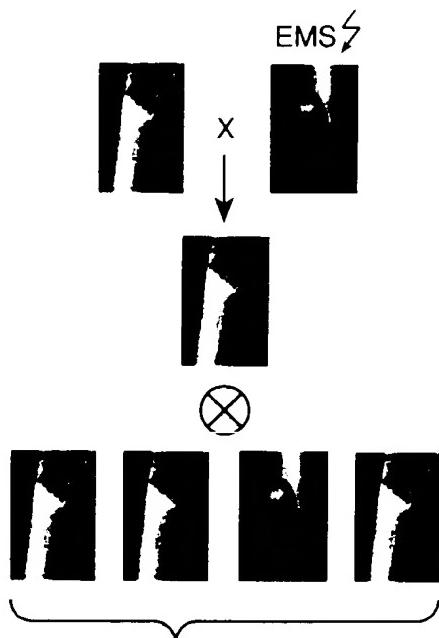


FIG._ 17



FIG._ 18A



FIG._ 18B

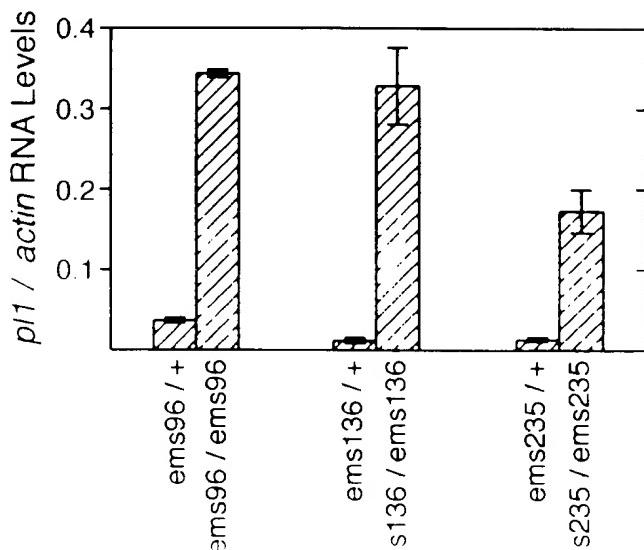


FIG._ 18C

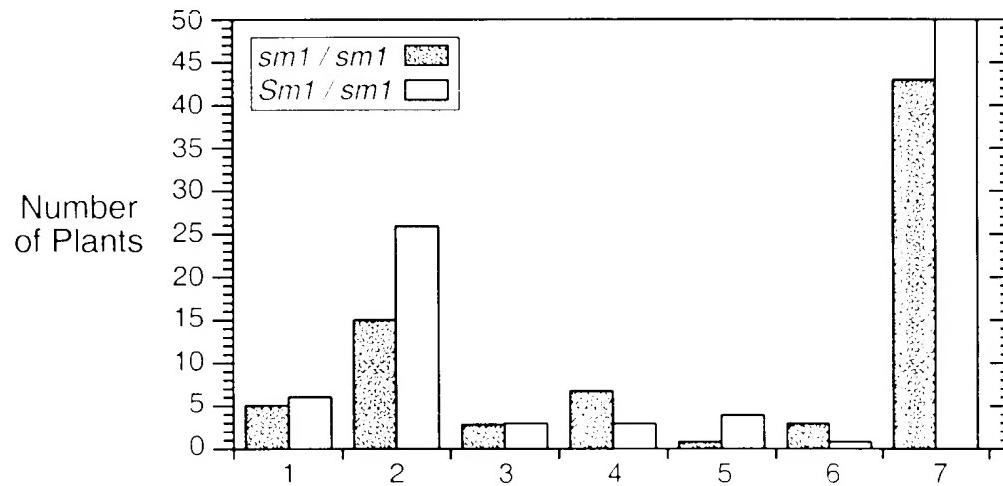
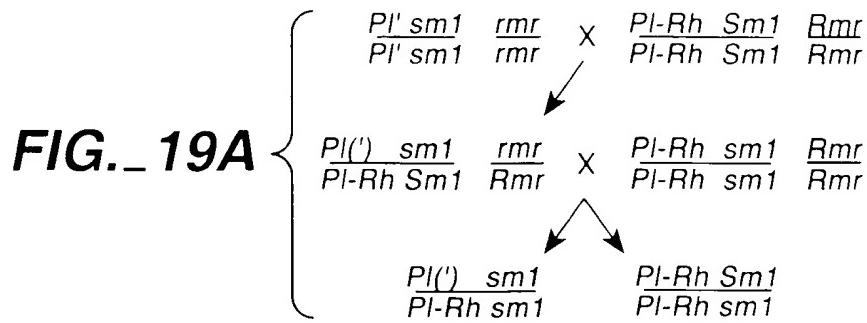


FIG._ 19B

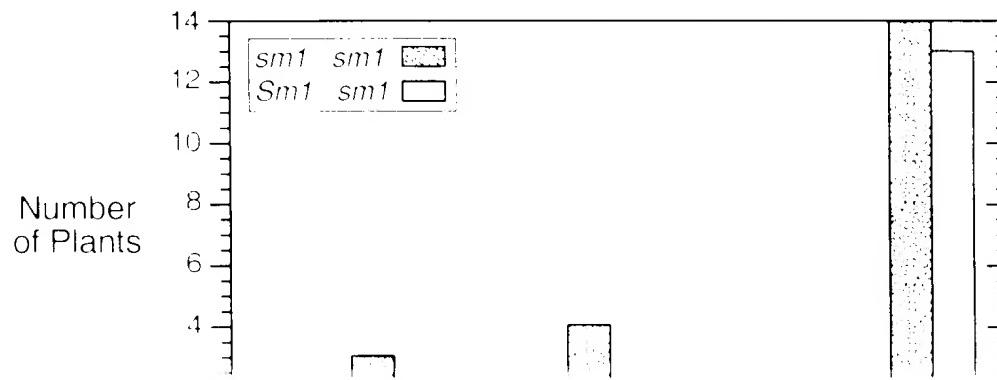


FIG._ 19C

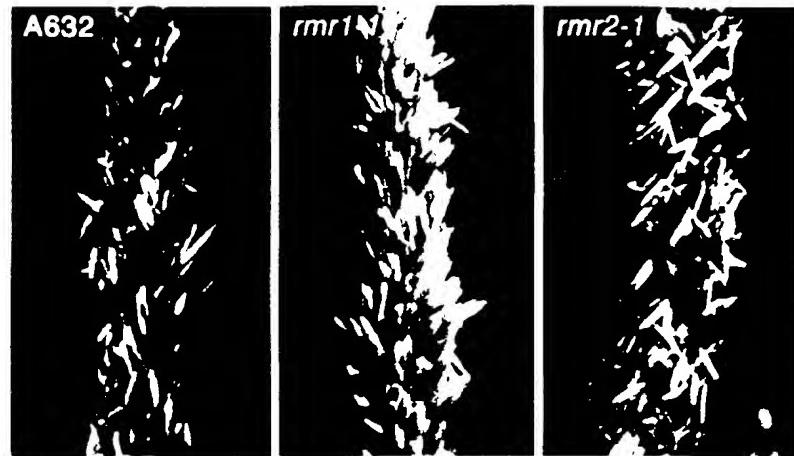


FIG._20

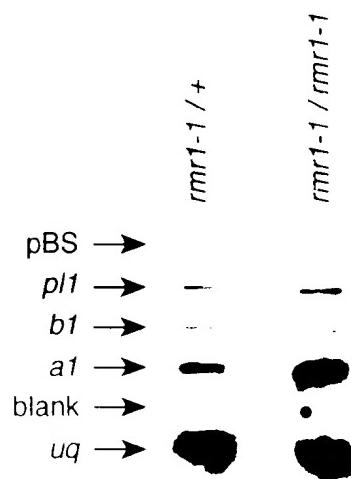


FIG._21A

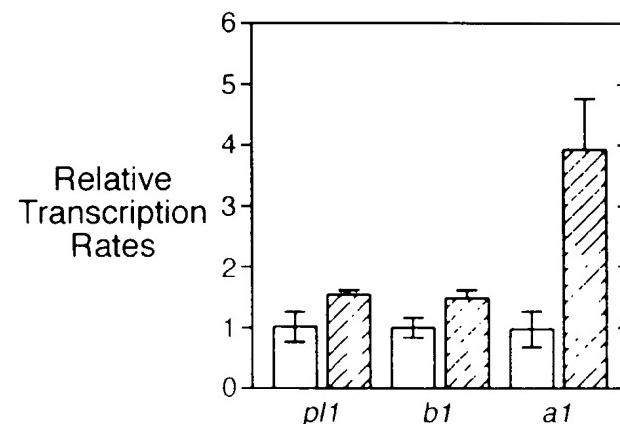


FIG._21B

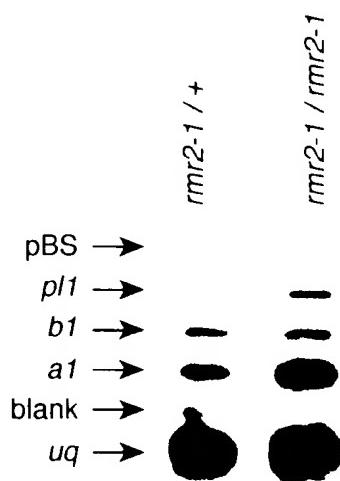


FIG._22A

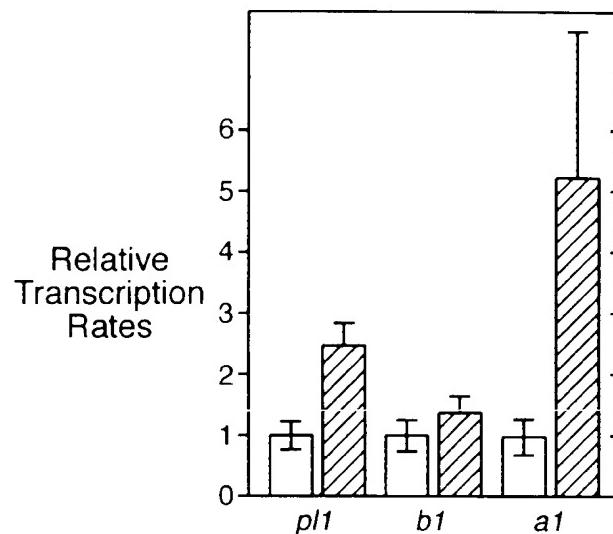


FIG._22B

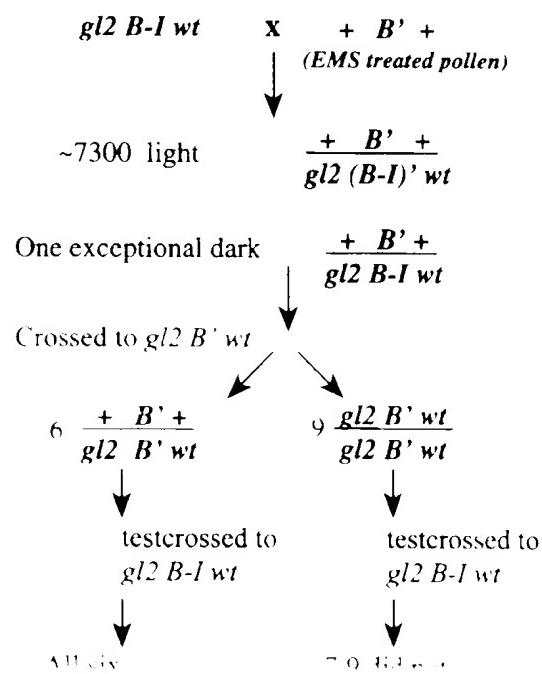


FIG._23

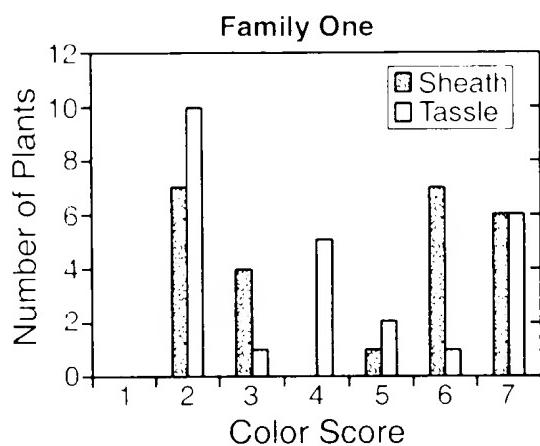


FIG._24A

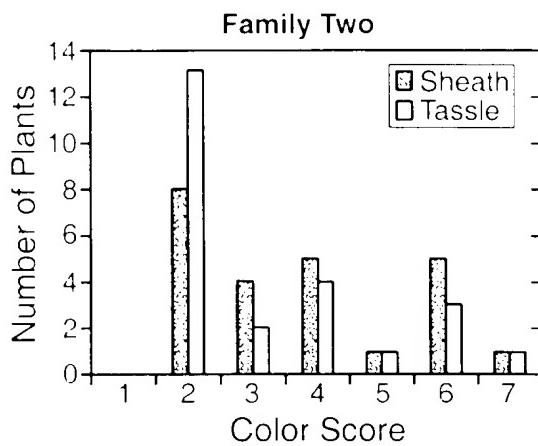


FIG._24B

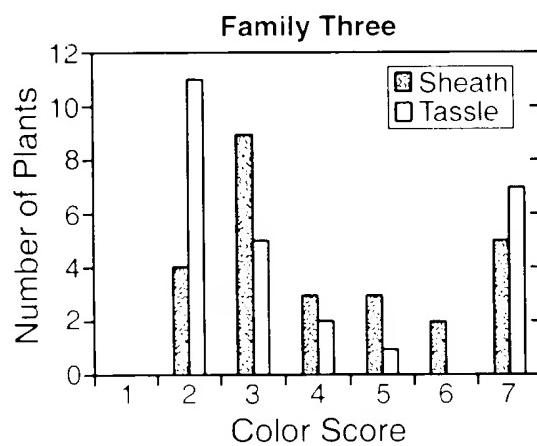


FIG._24C



FIG._24D

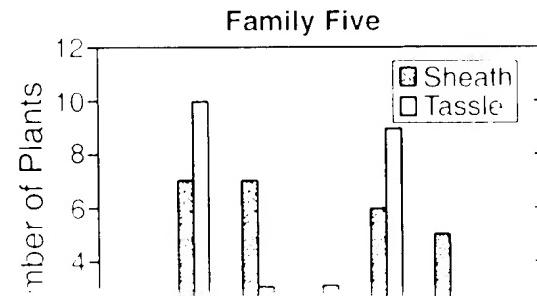


FIG._24E

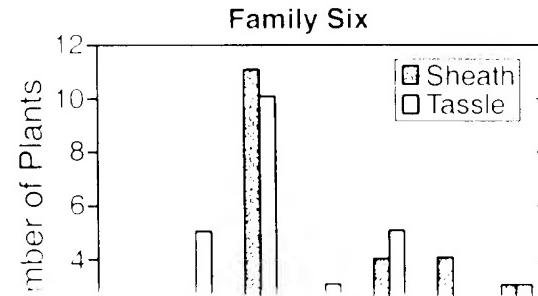


FIG._24F

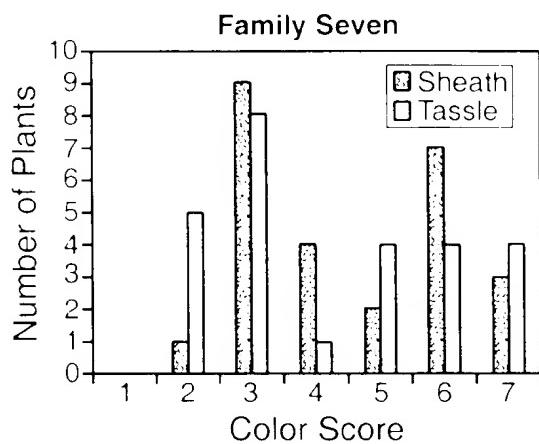


FIG._24G

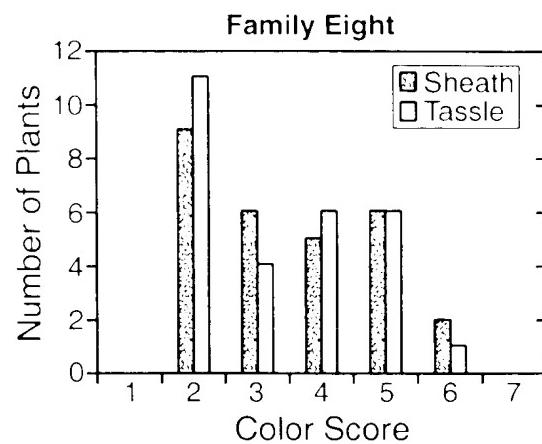


FIG._24H

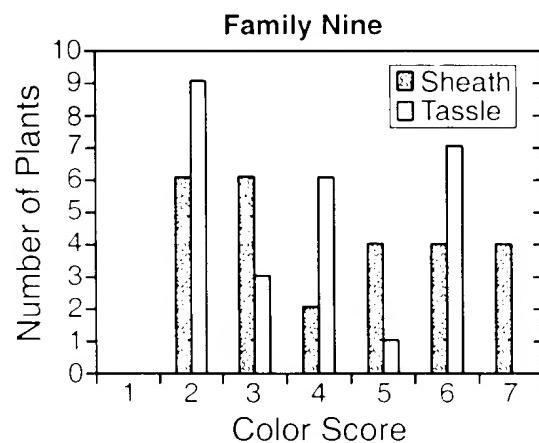


FIG._24I

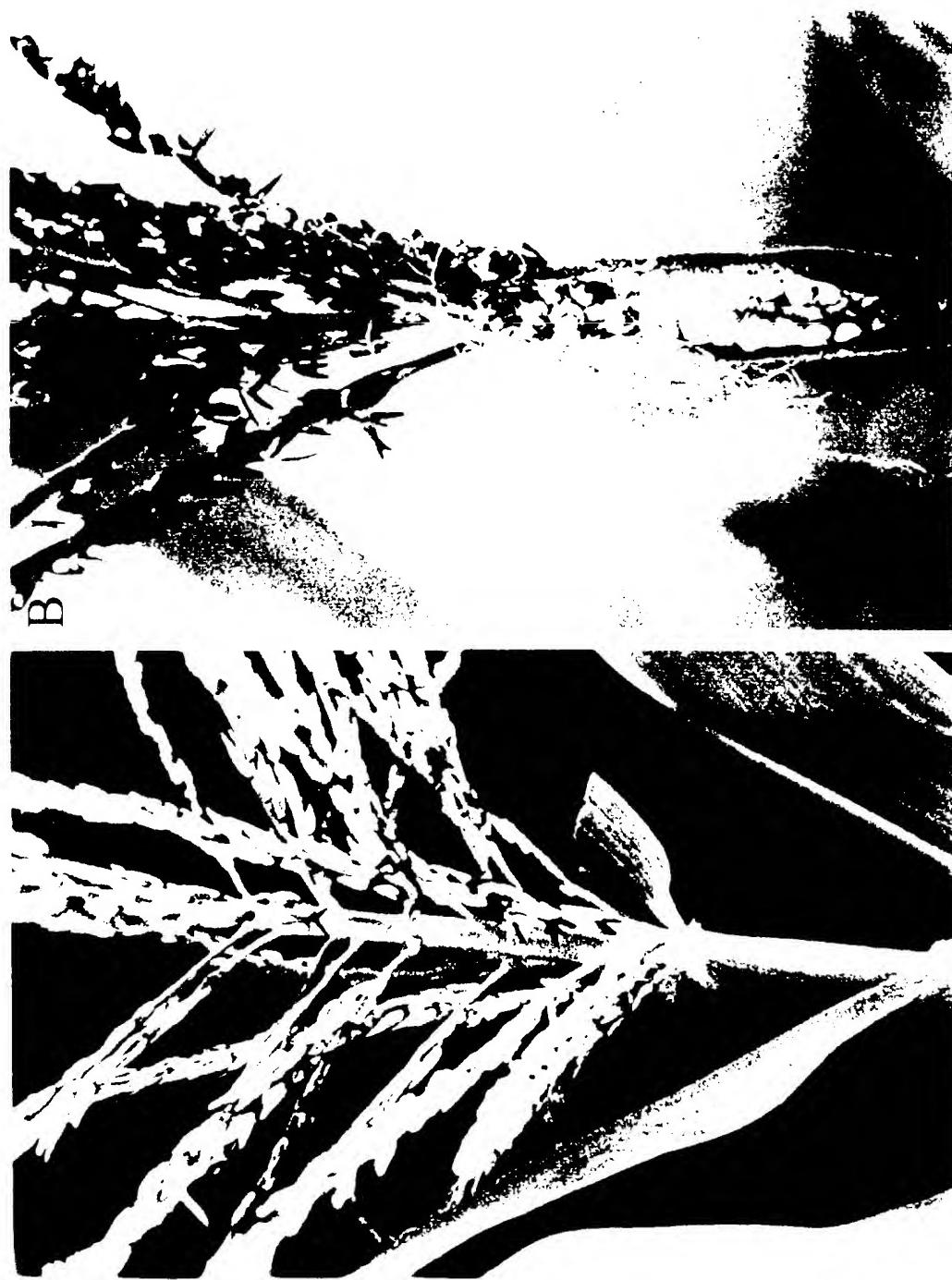


FIG._ 25B
FIG._ 25A

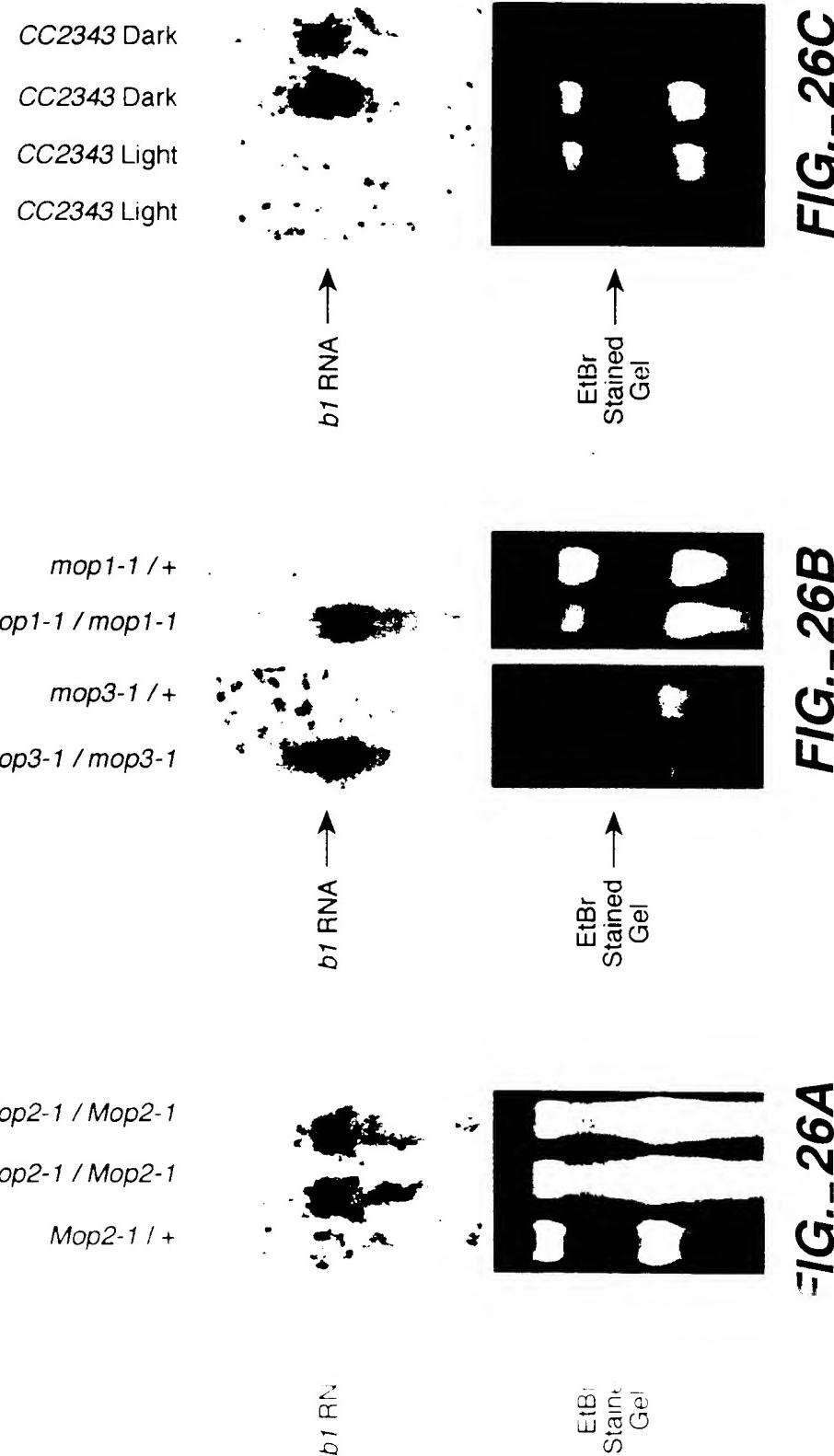


FIG._27A



FIG._27B



FIG._27C



FIG._27D



FIG._27E



FIG._27F



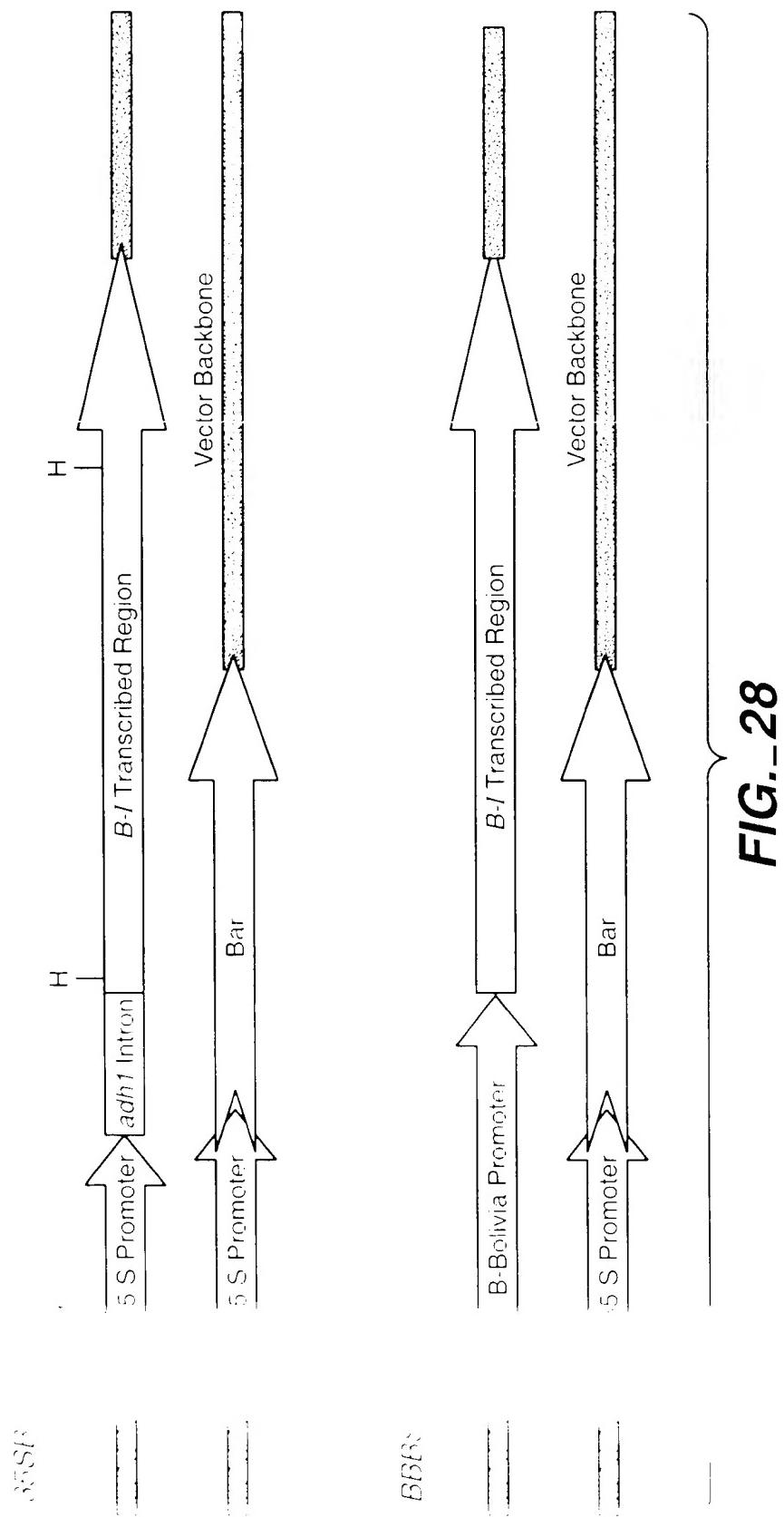


FIG._28

FIG._29A



B'Mop2-1 / mop2 *B'Mop2-1 / Mop2-1*
35SB-1

FIG._29B



rmr2-1 / rmr2-1 *Rmr2 / rmr2-1*
35SB-1

FIG._29C



B'mop1-1 / mop1-1 *B'Mop1 / mop1-1*
35SB-1

FIG._29D



rmr1-1 / rmr1-1 *Rmr1 / rmr1-1*
35SB-1



Rmr2 / rmr2-1 *rmr2-1 / rmr2-1*
BBBS

FIG._29E

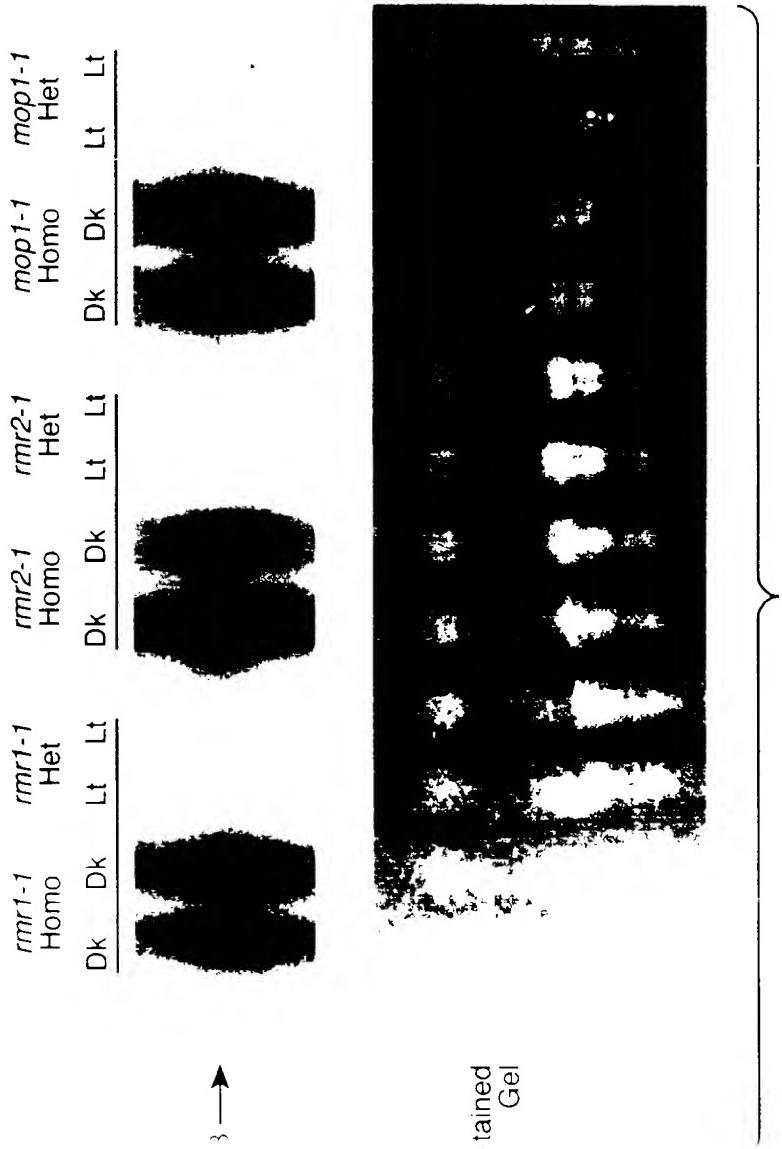


FIG.-30

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Inventor: Vicki L. CHANDLER et al.
Artnum: 1638
Appln No: 09/912,808
Docket No: 4362-2063200
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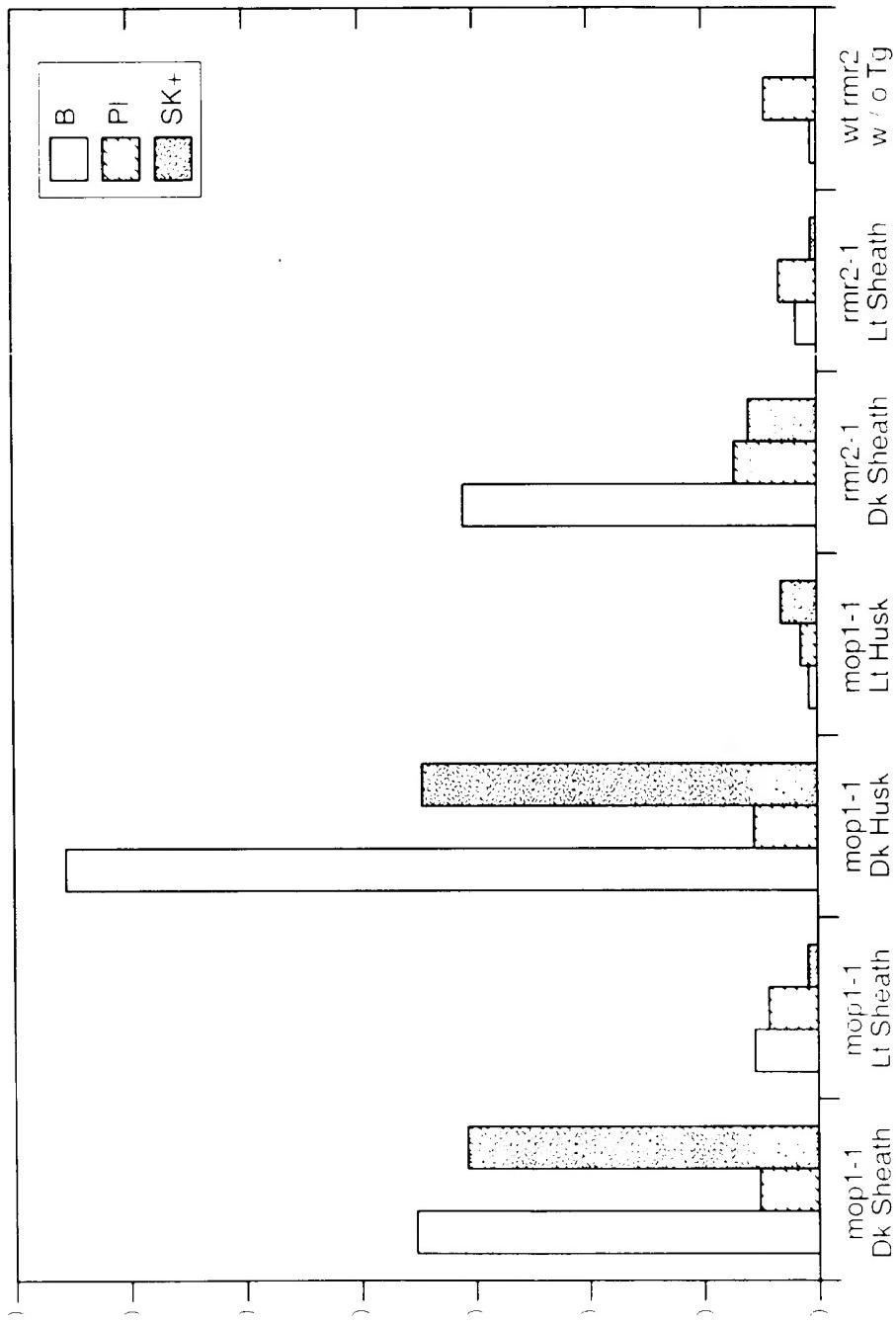


FIG.-31

Title: GENETIC FUNCTIONS REQUIRED
Inventor: Vicki L. CHANDLER et al.
ART UNIT: 1638
Appln No.: 09/972,805
Docket No.: 416272061200
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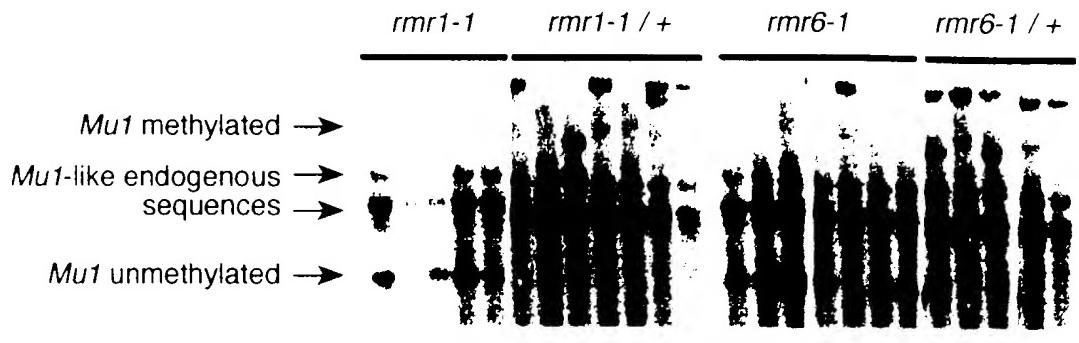


FIG._32A

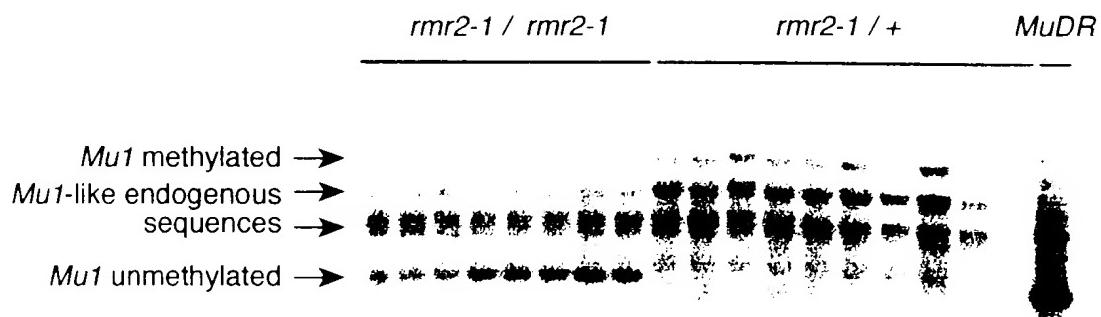


FIG._32B

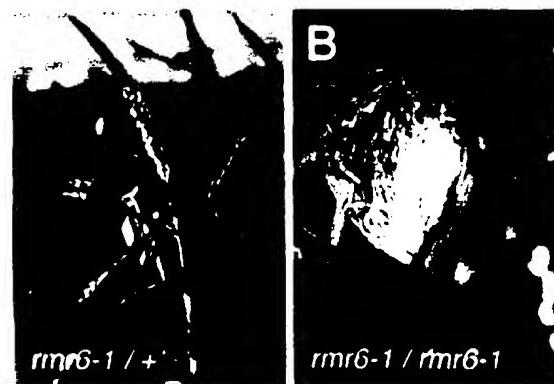


FIG._33A FIG._33B

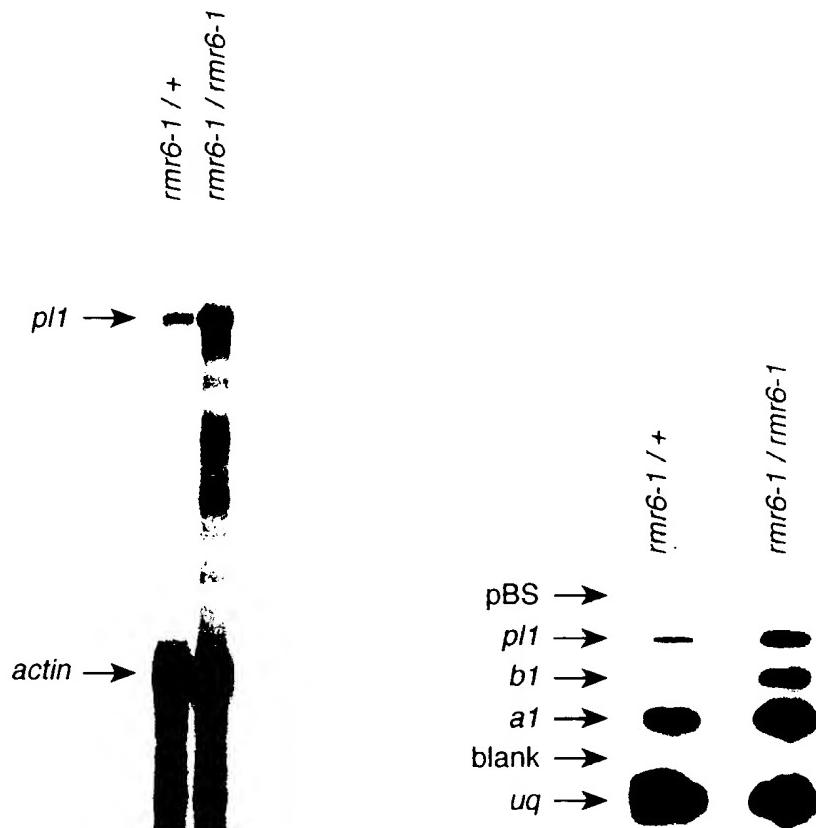


FIG._34A

FIG._34B

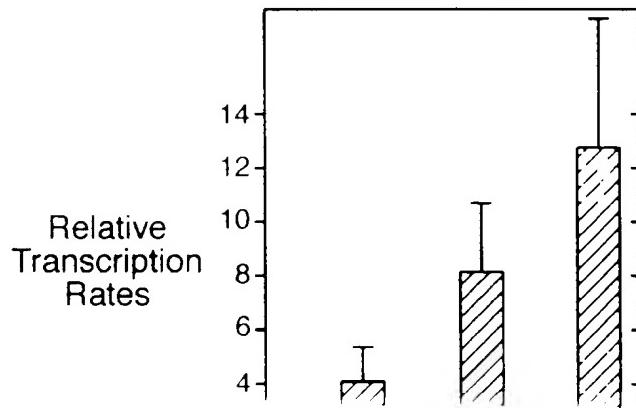


FIG._34C